

Serial No.: 10/564,987

PF030118

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CENTRAL FAX CENTERListing and Amendments to the Claims

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Please rewrite claims 10-12 as indicated. Please cancel claim 14.

10. (Currently Amended) An illuminating device comprising an optical source emitting an unpolarized light beam, a polarizing beam splitter included between first faces of a first and of a second transparent prism, which prisms each have a second exit face both situated within one and the same plane, said first faces and second faces of each prism being perpendicular; the light beam penetrating into the first prism through a third face of this first prism and reaching the polarizing beam splitter that transmits the light with a first polarization direction and that reflects the light with a second polarization direction; the light transmitted by the polarizing beam splitter being transmitted to a third face of the second prism that reflects it toward said second exit face of the second prism, and the light reflected by the polarizing beam splitter being transmitted to said third face of the first prism that reflects it toward said second exit face of the first prism,

wherein said illuminating device also comprises a polarization rotator device associated with only one of said second exit faces of the prisms, a light integrating device of a "rod" type, and a spatial light modulator of a liquid crystal type,

wherein said light integrating device has having an entry face that is optically coupled to said second exit faces of the prisms and that, receiving the beams reflected by the third faces of the prisms, delivers a beam through an exit face whose illumination is substantially homogeneous over this face and that allows said spatial light modulator to be illuminated in a uniform manner, and

wherein the polarizing beam splitter comprises a grid polarizer situated between the first faces of the first and of the second prism.

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11. (Currently Amended) The illuminating device as claimed in claim 10, wherein the non-right angles of the prisms are substantially equal to 60° opposite the first faces and to 30° opposite the second face, and in that the average direction of said light beam is substantially perpendicular to the third face of the first prism as it penetrates into this prism.
12. (Previously Presented) The device as claimed in claim 10, wherein the divergence of said light beam is greater than or equal to 5° on either side of the average direction of said beam.
13. (Previously Presented) The device as claimed in claim 12, wherein the divergence of said light beam is less than or equal to 10° on either side of the average direction of said beam.
14. (Cancelled).
15. (Previously Presented) The illuminating device as claimed in claim 10, wherein said grid polarizer is formed on the first face of the first prism or on the first face of the second prism.
16. (Previously Presented) The illuminating device as claimed in claim 15, wherein an air gap is provided between, on the one hand, the grid polarizer and said first face of the first or of the second prism on which it is formed and, on the other, the other first face of the second or of the first prism, respectively, situated facing it.
17. (Previously Presented) The illuminating device as claimed in claim 10, wherein the index of the material of the prisms is less than or equal to 1.5.